

UNIFORM GUIDELINES FOR STATE HIGHWAY SAFETY PROGRAMS

HIGHWAY SAFETY PROGRAM GUIDELINE NUMBERS AND TITLES:

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HIGHWAY SAFETY PROGRAM GUIDELINE No. 1 PERIODIC MOTOR VEHICLE INSPECTION

Each State should have a program for periodic inspection of all registered vehicles or other experimental, pilot, or demonstration program approved by the Secretary, to reduce the number of vehicles with existing or potential conditions which cause or contribute to accidents or increase the severity of accidents which do occur, and should require the owner to correct such conditions.

- I. A model program would provide, at a minimum, that:
 - A. Every vehicle registered in the State is inspected either at the time of initial registration and at least annually thereafter, or at such other time as may be

- designated under an experimental, pilot or demonstration program approved by the Secretary.
- B. The inspection is performed by competent personnel specifically trained to perform their duties and certified by the State.
 - C. The inspection covers systems, subsystems, and components having substantial relation to safe vehicle performance.
 - D. The inspection procedures equal or exceed criteria issued or endorsed by the National Highway Traffic Safety Administration.
 - E. Each inspection station maintains records in a form specified by the State, which includes at least the following information:
 - 1. Class of vehicle.
 - 2. Date of inspection.
 - 3. Make of vehicle.
 - 4. Model year.
 - 5. Vehicle identification number.
 - 6. Defects by category.
 - 7. Identification of inspector.
 - 8. Mileage or odometer reading.
 - F. The State publishes summaries of records of all inspection stations at least annually, including tabulations by make and model of vehicle.
- II. The program should be periodically evaluated by the State and the National Highway Traffic Safety Administration should be provided with an evaluation summary.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 2
MOTOR VEHICLE REGISTRATION**

Each State should have a motor vehicle registration program.

- I. A model registration program would be such that every vehicle operated on public highways is registered and the following information is readily available for each vehicle:
 - A. Make.
 - B. Model year.
 - C. Identification number (rather than motor number).
 - D. Type of body.
 - E. License plate number.
 - F. Name of current owner.
 - G. Current address of owner.
 - H. Registered gross laden weight of every commercial vehicle.
- II. Each program should have a records system that provides at least the following services:
 - A. Rapid entry of new data into the records or data system.
 - B. Controls to eliminate unnecessary or unreasonable delay in obtaining data.

- C. Rapid audio or visual response upon receipt at the records station of any priority request for status of vehicle possession authorization.
 - D. Data available for statistical compilation as needed by authorized sources.
 - E. Identification and ownership of vehicle sought for enforcement or other operation needs.
- III. This program should be periodically evaluated by the State and the National Highway Traffic Safety Administration should be provided with an evaluation summary.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 3
MOTORCYCLE SAFETY**

Each State, in cooperation with its political subdivisions, should have a comprehensive program to promote motorcycle safety and prevent motorcycle-related injuries. To be effective in reducing the number of motorcycle crash deaths and injuries, State programs should address the use of helmets and other protective gear, proper licensing, impaired riding, rider training, conspicuity, and motorist awareness. This Motorcycle Safety Program Guideline will assist States and local communities in the development and implementation of effective motorcycle safety programs.

I. PROGRAM MANAGEMENT

Each State should identify the nature and extent of its motorcycle safety problems, establish goals and objectives for the State's motorcycle safety program, and implement projects to reach the goals and objectives. State motorcycle safety plans should:

- A. Designate a lead agency for motorcycle safety;
- B. Develop funding sources;
- C. Collect and analyze data on motorcycle safety;
- D. Identify the State's motorcycle safety problem areas;
- E. Develop programs (with specific projects) to address problems;
- F. Coordinate motorcycle projects with those for the general motoring public;
- G. Integrate motorcycle safety into community/corridor traffic safety and other injury control programs; and
- H. Include passage and enforcement of mandatory motorcycle helmet legislation.

II. MOTORCYCLE PERSONAL PROTECTIVE EQUIPMENT

Each State should encourage motorcycle operators and passengers to use the following protective equipment:

- A. Motorcycle helmets that meet the Federal helmet standard (their use should be required by law);
- B. Proper clothing, including gloves, boots, long pants, and a durable long-sleeved jacket; and

- C. Eye (which should be required by law) and face protection.

Additionally, each passenger should be provided a seat and footrest.

III. MOTORCYCLE OPERATOR LICENSING

States should require every person who operates a motorcycle on public roadways to pass an examination designed especially for motorcycle operation and to hold a license endorsement specifically authorizing motorcycle operation. Each State should have a motorcycle licensing system that requires:

- A. Motorcycle operator's manual;
- B. Motorcycle license examination, including knowledge and skill tests, and State licensing medical criteria;
- C. License examiner training;
- D. Motorcycle license endorsement;
- E. Motorcycle license renewal requirements;
- F. Learner's permit issued for a period of 90 days and limits on the number or frequency of learner's permits issued per applicant; and
- G. Penalties for violation of motorcycle licensing requirements.

IV. MOTORCYCLE RIDER EDUCATION AND TRAINING

Safe motorcycle operation requires specialized training by qualified instructors. Each State should establish a State Motorcycle Rider Education Program that provides for:

- A. Source of program funding;
- B. State organization to administer the program;
- C. Use of Motorcycle Safety Foundation curriculum or equivalent State-approved curriculum;
- D. Reasonable availability of rider education courses for all interested residents of legal riding age;
- E. Instructor training and certification;
- F. Incentives for successful course completion such as licensing skills test exemption;
- G. Quality control of the program;
- H. Ability to purchase insurance for the program;
- I. State guidelines for conduct of the program; and
- J. Program evaluation.

V. MOTORCYCLE OPERATION WHILE IMPAIRED BY ALCOHOL OR OTHER DRUGS

Each State should ensure that programs addressing impaired driving include a focus on motorcycles. The following programs should include an emphasis on impaired motorcyclists:

- A. Community/corridor traffic safety and other injury control programs;

- B. Public information and education campaigns;
- C. Youth impaired driving programs;
- D. Law enforcement programs;
- E. Judge and prosecutor training programs;
- F. Anti-impaired driving organizations; and
- G. College and school programs.

VI. MOTORCYCLE CONSPICUITY AND MOTORIST AWARENESS PROGRAMS

State motorcycle safety programs should emphasize the issues of rider conspicuity and motorist awareness of motorcycles. These programs should address:

- A. Daytime use of motorcycle lights;
- B. Brightly colored clothing and reflective materials for motorcycle riders and motorcycle helmets with high daytime and nighttime conspicuity;
- C. Lane positioning of motorcycles to increase vehicle visibility;
- D. Reasons why motorists do not see motorcycles; and
- E. Ways that other motorists can increase their awareness of motorcyclists.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 4
DRIVER EDUCATION**

Each State, in cooperation with its political subdivisions, should have a driver education and training program. This program should provide at least that:

- I. There is a driver education program available to all youths of licensing age which:
 - A. Is taught by instructors certified by the State as qualified for these purposes.
 - B. Provides each student with practice driving and instruction in at least the following:
 - 1. Basic and advanced driving techniques including techniques for handling emergencies.
 - 2. Rules of the road, and other State laws and local motor vehicle laws and ordinances.
 - 3. Critical vehicle systems and sub-systems requiring preventive maintenance.
 - 4. The vehicle, highway and community features:
 - a. That aid the driver in avoiding crashes.
 - b. That protect him and his passengers in crashes.
 - c. That maximize the salvage of the injured.
 - 5. Signs, signals, and highway markings and highway design features which require understanding for safe operation of motor vehicles.
 - 6. Differences in characteristics of urban and rural driving including safe use of modern expressways.
 - 7. Pedestrian safety.

- C. Encourages students participating in the program to enroll in first aid training.
- II. There is a State research and development program including adequate research, development and procurement of practice driving facilities, simulators, and other similar teaching aids for both school and other driver training use.
- III. There is a program for adult driving training and retraining.
- IV. Commercial driving schools are licensed and commercial driving instructors are certified in accordance with specific criteria adopted by the State.
- V. The program should be periodically evaluated by the State, and the National Highway Traffic Safety Administration should be provided with an evaluation summary.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 5
DRIVER LICENSING**

Each state should have a driver licensing program: (a) To insure that only persons physically and mentally qualified will be licensed to operate a vehicle on the highways of the State, and (b) to prevent needlessly removing the opportunity of the citizen to drive. A model program would provide, as a minimum, that:

- I. Each driver hold only one license, which identifies the type(s) of vehicle(s) he is authorized to drive.
- II. Each driver submits acceptable proof of date and place of birth in applying for his original license.
- III. Each driver:
 - A. Passes an initial examination demonstrating his:
 - 1. Ability to operate the class(es) of vehicles(s) for which he is licensed.
 - 2. Ability to read and comprehend traffic signs and symbols.
 - 3. Knowledge of laws relating to traffic (rules of the road) safe driving procedures, vehicle and highway safety features, emergency situations that arise in the operation of and other driver responsibilities.
 - 4. Visual acuity, which must meet or exceed State guidelines.
 - B. Is reexamined at an interval not to exceed 4 years, for at least visual acuity and knowledge of rules of the road.
- IV. A record on each driver should be maintained which includes positive identification, current address, and driving history. In addition, the record system should provide the following services:
 - A. Rapid entry of new data into the system.
 - B. Controls to eliminate unnecessary or unreasonable delay in obtaining data which is required for the system.
 - C. Rapid audio or visual response upon receipt at the records station of any priority request for status of driver license validity.
 - D. Ready availability of data for statistical compilation as needed by authorized sources.
 - E. Ready identification of drivers sought for enforcement or other operational needs.

- V. Each license should be issued for a specific term, and should be renewed to remain valid. At time of issuance or renewal each driver's record should be checked.
- VI. There should be a driver improvement program to identify problem drivers for record review and other appropriate actions designed to reduced the frequency of there involvement in traffic accidents or violations.
- VII. There should be:
 - A. A system providing for medical evaluation of persons whom the driver licensing agency has reason to believe have mental or physical conditions which might impair their driving ability.
 - B. A procedure which will keep the driver license agency informed of all licensed drivers who are currently applying for or receiving any type of tax, welfare or other benefits or exemptions for the blind or nearly blind.
 - C. A medical advisory board or equivalent allied health professional unit composed of qualified personnel to advise the driver license agency on medical criteria and vision guidelines.
- VIII. The program should be periodically evaluated by the State, and the National Highway Traffic Safety Administration should be provided with an evaluation summary. The evaluation should be provided with an evaluation summary. The evaluation should attempt to ascertain the extent to which driving without a license occurs.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 6
CODES AND LAWS**

Each State should develop and implement a program to achieve uniformity of traffic codes and laws throughout the State. The program should provide at least that:

- I. There is a plan to achieve uniform rules of the road in all of its jurisdictions.
- II. There is a plan to make the State's unified rules of the road consistent with similar unified plans of other States. Toward this end, each State should undertake and maintain continuing comparisons of all State and local laws, statutes and ordinances with the comparable provisions of the Rules of the Road section of the Uniform Vehicle Code.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 7
TRAFFIC COURTS**

Each State in cooperation with its political subdivisions should have a program to assure that all traffic courts in it complement and support local and statewide traffic safety objectives. The program should provide at least that:

- I. All convictions for moving traffic violations should be reported to the State traffic records system.
- II. Program Recommendations.

In addition the State should take appropriate steps to meet the following recommended conditions:

- A. All individuals charged with moving hazardous traffic violations are required to appear in court.
- B. Traffic courts are financially independent of any fee system, fines, costs or other revenue such as posting or forfeiture of bail or other collateral resulting from processing violations of motor-vehicle laws.
- C. Operating procedures, assignment of judges, staff and quarters insure reasonable availability of court services for alleged traffic offenders.
- D. There is a uniform accounting system regarding traffic violation notices, collection of fines, fees, and costs.
- E. There are uniform rules governing court procedures in traffic cases.
- F. There are current manuals and guides for administration, court procedures, and accounting.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 8
IMPAIRED DRIVING**

Each State, in cooperation with its political subdivisions, should have a comprehensive program to combat impaired driving. This guideline describes the areas that each State's program should address. Throughout this guideline, "impaired driving" means operating any motor vehicle while one's faculties are affected by alcohol or other drugs, medications, or other substances. "Impaired driving" includes, but is not limited to, impairment as defined in State statutes.

I. PREVENTION

Each State should have prevention programs to reduce impaired driving through approaches commonly associated with public health -- altering social norms, changing risky or dangerous behaviors, and creating protective environments. Prevention and public health programs promote activities to educate the public on the effects of alcohol and other drugs, limit alcohol and drug availability, and prevent those impaired by alcohol and drugs from driving. Prevention programs are typically carried out in schools, work sites, medical and health care facilities, and community groups. Each State should implement a system of impaired driving prevention activities and work with the traffic safety, health and medical communities to foster health and reduce traffic-related injuries and their resulting costs.

- A. Public Information and Education for Prevention

States should develop and implement public information and education (PI&E) programs directed at impaired driving, and reducing the risk of injury or death and their resulting medical, legal and other costs. Programs should start at the State level and extend to communities through State assistance, model programs, and public encouragement. States should:

- Have a statewide plan, program, and coordinator for all impaired driving PI&E activities;
- Develop their own PI&E campaigns and materials, either by adapting materials from the Federal government or other States, or by creating new campaigns and materials;
- Encourage and support communities to implement awareness programs at the local level;
- Encourage businesses and private organizations to participate in impaired driving PI&E campaigns; and
- Encourage media to support impaired driving highway safety issues by reporting on programs, activities (including enforcement campaigns), alcohol-related arrests, and alcohol-related crashes.

B. School Programs

Student programs, including kindergarten through college and trade school, play a critical role in preventing impaired driving. States should:

- Implement K-12 traffic safety education, with appropriate emphasis on impaired driving, as part of a comprehensive health education program;
- Establish and support student safety clubs and activities and create a statewide network linking these groups;
- Establish liaisons with higher education institutions to encourage policies to reduce alcohol, other drug, and traffic safety problems on college campuses;
- Promote alcohol- and drug-free events throughout the school year, with particular emphasis on high-risk times such as prom, spring break, and graduation;
- Coordinate closely with anti-drug education efforts and programs;
- Develop working relationships with school health personnel as a means of providing information to students about a variety of traffic safety and health behaviors; and
- Make effective use of criminal justice, medical, or other professionals through presentations in the classroom or assembly programs.

C. Employer Programs

States should provide information and technical assistance to all employers, encouraging them to offer programs to reduce impaired driving by employees and their families. These programs should include:

- Model policies for impaired driving and other traffic safety issues, including safety belt use and speeding;
- Management training to recognize and address alcohol and drug impairment;
- Education and treatment programs for employees; and
- Employee awareness activities.
- States should especially encourage companies and businesses to provide impaired driving programs to their youthful employees. The States should also be familiar with FHWA's drug and alcohol requirements for employers of commercial motor vehicle (CMV) drivers.

D. Responsible Alcohol Service

States should promote responsible alcohol service policies and practices through social host programs and well-publicized and enforced laws, regulations, policies and education in the retail alcohol service industry (including package stores, restaurants, and taverns). States should:

- Implement and enforce programs to eliminate the sale or service of alcoholic beverages to those under 21 years of age;
- Promote alcohol server and service programs, including assessments, written policies, and training;
- Ensure adequate alcohol control regulations dealing with issues such as service to visibly intoxicated patrons and the elimination of "happy hours" during which free or reduced-price alcoholic beverages are offered (food and non-alcoholic beverages may be offered instead during such times);
- Provide adequate resources (including budget, staff, and training) to enforce alcohol beverage control regulations;
- Promote the display of responsible alcohol use and drinking and driving information in alcohol sales and service establishments;
- Promote participation in designated driver, safe rides, and other alternative transportation programs; and
- Provide that commercial establishments may be held responsible for damages caused by any patron who was served alcohol when visibly intoxicated.

E. Transportation Alternatives

States should promote alternative transportation programs that enable drinkers to reach their destinations without driving. Alternative transportation programs include:

- Designated drivers; and
- Safe rides.

II. DETERRENCE

Each State should have a deterrence program to reduce impaired driving through activities to create the maximum possible perception of detection, arrest and punishment

among persons who might be tempted to drive under the influence of alcohol or other drugs, including CMV drivers. Close coordination with law enforcement agencies on the municipal, county, and state levels is needed to create and sustain the perceived risk of being detected and arrested. Specialized traffic enforcement efforts, such as the Motor Carrier Safety Assistance Program (MCSAP), also serve as a core element in the detection of impaired drivers. Equally close coordination with courts and the motor vehicle licensing and registration agency is needed to enhance the fear of punishment. Effective use of all available media is essential to create and maintain a strong public awareness of impaired driving enforcement and sanctions.

Each State should implement a system of activities to deter impaired driving. The deterrence system should include legislation, public information and education, enforcement, prosecution, adjudication, criminal sanctions, driver licensing, and vehicle registration activities. The goal should be to increase the perception and probability of arrest for violators and the imposition of swift and sure sanctions.

A. Laws To Deter Impaired Driving

States should enact laws that define and prohibit impaired driving in broad and readily enforceable terms, facilitate the acquisition of evidence against impaired drivers, and permit a broad range of administrative and judicial penalties and actions. These laws should:

- Define impaired driving offenses -
 - Establish .08 Blood Alcohol Concentration (BAC) as the blood alcohol level at or above which it is illegal to operate a motor vehicle ("illegal per se");
 - Establish .04 BAC as the illegal per se blood alcohol level for commercial truck and bus operators, as provided by commercial driver license regulations;
 - Establish that it is illegal per se for persons under the age of 21 (the legal drinking age) to drive with any measurable amount of alcohol in their blood, breath, or urine;
 - Establish that driving under the influence of other drugs (whether illegal, prescription, or over-the-counter) is unlawful and is treated similarly to driving under the influence of alcohol;
 - Establish vehicular homicide or causing personal injury while under the influence of alcohol as a separate offense; and
 - Prohibit open alcohol containers and consumption of alcohol in motor vehicles.
- Provide for effective enforcement of these laws -
 - Authorize police to conduct checkpoints, in which vehicles are stopped on a nondiscriminatory basis to determine whether or not the operators are driving under the influence of alcohol or drugs;
 - Authorize police to use a preliminary breath test for a vehicle operator stopped for a suspected impaired driving offense;

- Authorize police to test for impairing drugs other than alcohol;
- Include implied consent provisions that permit the use of chemical tests and that allow the arresting officer to require more than one test of a vehicle operator stopped for a suspected impaired driving offense;
- Require prompt and certain license revocation or suspension for persons who refuse to take a chemical test to determine whether they were driving while intoxicated ("implied consent"); and
- Require mandatory blood alcohol concentration testing whenever a law enforcement officer has probable cause to believe that a driver has committed an alcohol-related offense.
- Provide effective penalties for these offenses --
 - Require prompt and certain administrative license revocation or suspension of at least 90 days for persons determined by chemical test to violate the State's BAC limit;
 - Provide for increasingly more severe penalties for repeat offenders, including lengthy license revocation, substantial criminal fines, jail, and/or impoundment or confiscation of license plates or vehicles registered by the offender;
 - Provide for more stringent criminal penalties for those convicted of more serious offenses, such as vehicular homicide;
 - Contain special provisions for youth under the age of 21 that mandate driver's license suspension for any violations of laws regarding the use or possession of alcohol or other drugs; and
 - Establish victim assistance and victim restitution programs and require the use of a victim impact statement prior to sentencing in all impaired driving cases where death or serious injury occurred.

B. Public Information and Education for Deterrence

States should implement public information and education (PI&E) programs to maximize public perception of the risks of being caught and punished for impaired driving. Public information programs should be:

- Comprehensive;
- Seasonally focused; and
- Sustained.

C. Enforcement

States should implement comprehensive enforcement programs to maximize the likelihood of detecting, investigating, arresting, and convicting impaired drivers. These programs should:

- Secure a commitment to rigorous impaired driving enforcement from the top levels of police management and State and local government;

- Provide state-of-the-art training for police officers, including Standardized Field Sobriety Testing (SFST) and Drug Evaluation and Classification (DEC);
- Provide adequate equipment and facilities, including preliminary and evidentiary breath test equipment;
- Deploy patrol resources effectively, using cooperative efforts of various State and local police agencies as appropriate;
- Maximize the likelihood of violator-officer contact;
- Make regular use of sobriety checkpoints;
- Facilitate the arrest process;
- Implement state-of-the-art post-arrest investigation of apprehended impaired drivers;
- Emphasize enforcement of youth impaired driving and drinking age laws; and
- Emphasize enforcement of laws regulating alcohol or drug impairment by CMV drivers.

D. Prosecution

States should implement a comprehensive program for visible and aggressive prosecution of impaired driving cases. These programs should:

- Give impaired driving cases high priority for prosecution;
- Provide sufficient resources to prosecute cases presented by law enforcement efforts;
- Facilitate uniformity and consistency in prosecution of impaired driving cases;
- Provide training for prosecutors so they can obtain high rates of conviction and seek appropriate sanctions for offenders;
- Prohibit plea bargaining in impaired driving cases, through appropriate legislation;
- Encourage vigorous prosecution of alcohol-related fatality and injury cases under both impaired driving and general criminal statutes; and
- Ensure that prosecutors are knowledgeable and prepared to prosecute youthful offenders appropriately.

E. Adjudication

The effectiveness of prosecution and enforcement efforts is lost without support and strength in adjudication. States should implement a comprehensive impaired driving adjudication program to:

- Provide sufficient resources to adjudicate cases and manage the dockets brought before them;
- Facilitate uniformity and consistency in adjudication of impaired driving cases;
- Give judges the skills necessary to appropriately adjudicate impaired driving cases;

- Provide similar training to administrative hearing officers who hear administrative license revocation appeals;
- Inform the judiciary about technical evidence presented in impaired driving cases, including SFST and DEC testimony;
- Educate the judiciary in appropriate and aggressive sanctions for offenders including violators of commercial motor vehicle safety regulations; and
- Ensure that judges are knowledgeable and prepared to adjudicate youthful offenders cases in an appropriate and aggressive manner.

F. Licensing

Driver licensing actions can be an effective means for preventing, deterring, and monitoring impaired driving. In addition to the license sanctions for impaired driving offenses discussed earlier, States should:

- Implement a graduated licensing system for novice drivers;
- Provide for license suspension for drivers under age 21 who drive with a BAC exceeding .02 (or some other low BAC value);
- Issue distinctive licenses to drivers under the age of 21;
- Monitor licensing records to identify high risk drivers for referral to education or remediation programs;
- Ensure the accurate and timely reporting of alcohol and drug violations as prescribed by the Commercial Drivers License (CDL) regulations;
- Assure that all licensing records are used to help assess whether a driver requires alcohol or drug treatment; and
- Actively participate in the Driver License Compact to facilitate the exchange of driver license information between jurisdictions.

III. TREATMENT AND REHABILITATION

Many first-time impaired driving offenders and most repeat offenders have substantial substance abuse problems that affect their entire lives, not just their driving. They have been neither prevented nor deterred from impaired driving. Each State should implement a system to identify and refer these drivers to appropriate substance abuse treatment programs to change their dangerous behavior.

A. Diagnosis and Screening

States should have a systematic program to evaluate persons who have been convicted of an impaired driving offense to determine if they have an alcohol or drug abuse problem. This evaluation should:

- Be required by law;
- Be conducted by qualified personnel prior to sentencing; and
- Be used to decide whether a substance abuse treatment program should be part of the sanctions imposed.

B. Treatment and Rehabilitation

States should establish and maintain programs to treat alcohol and other drug dependent persons referred through traffic courts and other sources. These programs should:

- Ensure that those referred for impaired driving offenses are not permitted to drive again until their substance abuse problems are under control;
- Be conducted in addition to, not as a substitute for, license restrictions and other sanctions; and
- Be conducted separately for youth.

IV. PROGRAM MANAGEMENT

Good program management produces effective programs. Planning and coordination are especially important for impaired driving activities, since many different parties are involved. Each State's impaired driving program management system should have an established process for managing its planning (including problem identification), program control, and evaluation activities. The system should provide for community traffic safety programs (CTSPs), State and local task forces, data analysis, and funding. It also should include planning and coordination of activities with other agencies involved in impaired driving programs, such as MCSAP, and expansion of existing partnerships, such as with the health and medical communities.

A. State Program Planning

States should develop and implement an overall plan for all impaired driving activities. The plan should:

- Be based on careful problem definition that makes use of crash and driver record data; and
- Direct State and community resources toward effective measures that address the State's impaired driving issues.

B. Program Control

States should establish procedures to ensure that program activities are implemented as intended. The procedures should provide for systematic monitoring and review of ongoing programs to:

- Detect and correct problems quickly;
- Measure progress in achieving established goals and objectives; and
- Ensure that appropriate data are collected for evaluation.

C. State and Local Task Forces and Community Traffic Safety and Other Injury Control Programs

States should encourage the development of State and community impaired driving task forces and community traffic safety and other injury control programs. States should:

- Use these groups to bring a wide variety of interests and resources to bear on impaired driving issues;
- Ensure that Federal, State, and local organizations coordinate impaired driving activities, so that the activities complement rather than compete with each other; and
- Ensure that these groups include traditional and non-traditional partners, such as law enforcement, local government, business, education, community groups, health, medicine, prosecutors and judges.

D. Data and Records

States should establish and maintain records systems for accidents, arrests, dispositions, driver licenses, and vehicle registrations. Especially important are tracking systems which can provide information on every driver arrested for DWI to determine the disposition of the case and compliance with sanctions. These records systems should be:

- Accurate;
- Timely;
- Able to be linked to each other; and
- Readily accessible to police, courts, and planners.

E. Evaluation

States should evaluate all impaired driving system activities regularly to ensure that programs are effective and scarce resources are allocated appropriately. Evaluation should be:

- Designed to use available traffic records and other injury control data systems effectively;
- Included in initial program planning to ensure that appropriate data are available and that adequate resources are allocated; and
- Conducted regularly.
- Evaluation results should be:
- Reported regularly to project and program managers; and
- Used to guide further program activities.

F. Funding

States should allocate funding to impaired driving programs that is:

- Adequate for program needs;
- Steady -- from dedicated sources; and
- To the extent possible, paid by the impaired drivers themselves. The programs should work toward being self-sufficient.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 9
[Reserved]**

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 10
TRAFFIC RECORDS**

Each State, in cooperation with its political subdivisions, should establish and implement a complete and comprehensive traffic records program. The Statewide program should include, or provide for, data for the entire State. A complete and comprehensive traffic records program is essential for the development and operation of a viable Safety Management System and effective traffic-related injury control efforts. It is also essential for the performance of planning, problem identification, operational management and control, tracking of safety trends, and the implementation and evaluation of highway safety countermeasures and activities. It is the key ingredient to safety effectiveness and management.

I. TRAFFIC RECORDS SYSTEM

To provide a complete and useful records system for safety program management at both the State and local level, the State should have a data base consisting of the following:

- A. A Crash File with data on the time, environment, and circumstances of a crash; identification of the vehicles, drivers, cyclists, occupants, and pedestrians involved; and documentation of crash consequences (fatalities, injuries, property damage and violations charged) with the data tied to a location reference system;
- B. A Driver File or driver history record of licensed drivers in the State, with data on personal identification and driver license number, type of license, license status (suspended or revoked), driver restrictions, driver convictions for traffic violations, crash history, driver control or improvement actions, and safety education data;
- C. A Vehicle File with information on identification, ownership and taxation, and vehicle inspection (where applicable);
- D. A Roadway File with information about roadway location, identification, and classification as well as a description of a road's total physical characteristics, which are tied to a location reference system. This file should also contain data for normalizing purposes, such as miles of roadway and average daily traffic (ADT);
- E. A Commercial Motor Vehicle Crash File which uses uniform data definitions and collects information on the vehicle configuration, cargo body type, hazardous materials, information to identify the motor carrier, as well as information on the crash (States are encouraged to use available information systems to cross-reference commercial vehicle citations for violations of Federal and State commercial vehicle safety regulations);

- F. A Citation/Conviction File which identifies the type of citation and the time, date, and location of the violation; the violator, vehicle and the enforcement agency; and adjudication action and results, including court of jurisdiction (an Enforcement/Citation File could be maintained separate from a Judicial/Conviction File) and fines assessed and collected;
- G. An Emergency Medical Services (EMS) file with emergency care and victim outcome information about ambulance responses to crashes, e.g., emergency care unit, care given, injury data, and times of EMS notification and arrival; information on emergency facility and hospital care, including Trauma Registry data; and medical outcome data relative to crash victims receiving rehabilitation and for those who died as the result of the crash; and
- H. Provisions for file linkage through common data elements between the files or through other consistent means; performance level data as part of the traffic records system; demographic data to normalize or adjust for exposure when analyzing the various data in the files; and provisions for the use of cost data relative to amounts spent on countermeasure programs and the costs of fatalities, injuries and property damage.

II. DATA CHARACTERISTICS

Traffic records programs should meet basic requirements for the most effective use of the data by program managers. Accordingly, each State should emphasize the following characteristics:

- A. An accurate identification of the crash location;
- B. Timely, accurate, and complete data collection and input to all files, and especially to the Crash and Driver Files, to assure maximum utilization and confidence in the traffic records system. Each state is encouraged to join and fully participate in the driver license compact to ensure that complete data are available from other states;
- C. Data uniformity, providing for uniform coding and definition of data elements to allow a State to compare its crash problems to other States, regions and the nation; and the use of uniform coding of violations and convictions for the efficient exchange of driver information between States;
- D. Data consistency within a State over time to provide for multi-year analysis of data to detect trends and for identification of emerging problems, as well as to determine beneficial effects of highway safety programs; and
- E. Timely, accurate, and complete data output to ensure that highway safety program managers will have records that are accessible, understandable, and effective.

III. USE OF TRAFFIC RECORDS

The measure of a good records system is the degree to which it is used by those it was designed to serve. Each State will develop and operate a Safety Management System and must use traffic records as part of that System. In addition, each State should establish a process for the effective use of traffic records by highway safety management and other injury control professionals both Statewide and for political subdivisions, when conducting the following activities:

- A. Performing planning, problem identification, program management or control, tracking, implementation and evaluation, pursuant to a management process developed by the State which addresses the role or use of traffic records data;
- B. Developing a problem identification strategy that specifies the necessary data, assures that accurate and timely data are available, defines the analyses conducted (including the variables used, statistical tests applied, and trends examined), and describes how results are reported and used;
- C. Conducting analyses and presenting results so that they are clearly understood and usable by managers, including the use of problem reports which describe the magnitude of the problems, and appropriate graphs, tables and charts to support the conclusions reached; and
- D. Performing program evaluation, beginning at the planning stage and carrying through implementation and final evaluation, essentially using the same types of data that were used in developing the programs implemented.

IV. MANAGING TRAFFIC RECORDS

Each State should have an organizational structure in place for effective administration of its traffic records program, at a minimum consisting of the following components:

- A. A permanent Traffic Records Committee, representing the principal users and custodians of the data in the State, that provides administrative and technical guidance. The Committee should be responsible for adopting requirements for file structure and linkage, assessing capabilities and resources, establishing goals for improving the traffic records program, evaluating the program, continuously developing cooperation and support from State and local agencies as well as the private sector, and ensuring that high quality and timely data are available to authorized persons or agencies for appropriate use;
- B. A single state agency with responsibility for coordinating the traffic safety-related data aspects of the various State information systems. This would include ensuring that the necessary data were available for use in safety and analyses; and
- C. Professional staff with analytical expertise to perform data analysis for program planning and evaluation, including a basic understanding of data processing as it relates to the use of personal computers (PCs) and the ability to use PC software application packages to perform problem identification and program evaluation tasks.

HIGHWAY SAFETY PROGRAM GUIDELINE No. 11 EMERGENCY MEDICAL SERVICES

Each State, in cooperation with its political subdivisions, should ensure that persons incurring traffic injuries (or other trauma) receive prompt emergency medical care under the range of emergency conditions encountered. Each of the component parts of a system should be equally

committed to its role in the system and ultimately to the care of the patient. At a minimum, the EMS program should be made up of the components detailed in this chapter.

I. REGULATION AND POLICY

Each State should embody comprehensive enabling legislation, regulations, and operational policies and procedures to provide an effective system of emergency medical and trauma care. This legal framework should:

- A. Establish the program and designate a lead agency;
- B. Outline the lead agency's basic responsibilities, including licensure and certification;
- C. Require comprehensive planning and coordination;
- D. Designate EMS and trauma system funding sources;
- E. Require data collection and evaluation;
- F. Provide authority to establish minimum standards and identify penalties for noncompliance; and
- G. Provide for an injury/trauma prevention and public education program.

All of these components, which are discussed in different sections of this guideline, are critical to the effectiveness of legislation that is the legal foundation for a statewide EMS system.

II. RESOURCE MANAGEMENT

Each State should establish a central lead agency at the State level to identify, categorize, and coordinate resources necessary for overall system implementation and operation. The lead agency should:

- A. Maintain a coordinated response and ensure that resources are used appropriately throughout the State;
- B. Provide equal access to basic emergency care for all victims of medical or traumatic emergencies;
- C. Provide adequate triage and transport of all victims by appropriately certified personnel (at a minimum, trained to the emergency medical technician [EMT] basic level) in properly licensed, equipped, and maintained ambulances;
- D. Provide transport to a facility that is appropriately equipped, staffed, and ready to administer to the needs of the patient (section 4: Transportation); and
- E. Appoint an advisory council to provide a forum for cooperative action and maximum use of resources.

III. HUMAN RESOURCES AND TRAINING

Each State should ensure that its EMS system has essential trained persons to perform required tasks. These personnel include: first responders (e.g., police and fire), prehospital providers (e.g., emergency medical technicians and paramedics), communications specialists, physicians, nurses, hospital administrators, and planners.

Each State should provide a comprehensive statewide plan for stable and consistent EMS training programs with effective local and regional support. The State agency should:

- A. Ensure sufficient availability of adequately trained EMS personnel;
- B. Establish EMT-Basic as the state minimum level of training for all transporting EMS personnel;
- C. Routinely monitor training programs to ensure uniformity and quality control;
- D. Use standardized curricula throughout the State;
- E. Ensure availability of continuing education programs;
- F. Require instructors to meet State requirements;
- G. Develop and enforce certification criteria for first responders and prehospital providers; and
- H. Require EMS operating organizations to collect data to evaluate emergency care in terms of the frequency, category, and severity of conditions treated and the appropriateness of care provided.

IV. TRANSPORTATION

Each State should require safe, reliable ambulance transportation, which is critical to an effective EMS system. States should:

- A. Develop statewide transportation plans, including the identification of specific service areas;
- B. Implement regulations that provide for the systematic delivery of patients to appropriate facilities;
- C. Develop routine, standardized methods for inspection and licensing of all emergency medical transport vehicles;
- D. Establish a minimum number of providers at the desired level of certification on each response;
- E. Coordinate all emergency transports within the EMS system, including public, private, or specialty (air and ground) transport; and
- F. Develop regulations to ensure ambulance drivers are properly trained and licensed.

V. FACILITIES

It is imperative that the seriously injured patient be delivered in a timely manner to the closest appropriate facility. Each State should ensure that:

- A. Both stabilization and definitive care needs of the patient are considered;
- B. The determination is free of non-medical considerations and the capabilities of the facilities are clearly understood by prehospital personnel;
- C. Hospital resource capabilities are known in advance, so that appropriate primary and secondary transport decisions can be made; and
- D. Agreements are made between facilities to ensure that patients receive treatment at the closest, most appropriate facility, including facilities in other states or counties.

VI. COMMUNICATIONS

An effective communications system is essential to EMS operations and provides the means by which emergency resources can be accessed, mobilized, managed, and coordinated. Each State should require a communication system to:

- A. Begin with the universal system access number 911;
- B. Strive for quick implementation of enhanced 911 services which make possible, among other features, the automatic identification of the caller's physical location;
- C. Provide for prioritized dispatch (dispatch-to-ambulance, ambulance-to-ambulance, ambulance-to-hospital, and hospital-to-hospital communication);
- D. Ensure that the receiving facility is ready and able to accept the patient; and
- E. Provide for dispatcher training and certification standards.

Each State should develop a statewide communications plan that defines State government roles in EMS system communications.

VII. TRAUMA SYSTEMS

Each State should maintain a fully functional trauma system to provide a high quality, effective patient care system. States should implement legislation requiring the development of a trauma system, including:

- A. Trauma center designation, using American College of Surgeons Committee on Trauma guidelines as a minimum;
- B. Triage and transfer standards for trauma patients;
- C. Data collection and trauma registry definitions for quality assurance;
- D. Mandatory autopsies to determine preventable deaths; and
- E. Systems management and quality assurance.

VIII. PUBLIC INFORMATION AND EDUCATION

Public awareness and education about the EMS system are essential to a high quality system. Each State should implement a public information and education (PI&E) plan to address:

- A. The components and capabilities of an EMS system;
- B. The public's role in the system;
- C. The public's ability to access the system;
- D. What to do in an emergency (e.g., bystander care training);
- E. Education on prevention issues (e.g., alcohol or other drugs, occupant protection, speeding, motorcycle and bicycle safety);
- F. The EMS providers' role in injury prevention and control; and
- G. The need for dedicated staff and resources for PI&E programming.

IX. MEDICAL DIRECTION

Physician involvement in all aspects of the patient care system is critical for effective EMS operations. EMS is a medical care system in which physicians delegate responsibilities to non-physician providers who manage patient care outside the

traditional confines of the office or hospital. States should require physicians to be involved in all aspects of the patient care system, including:

- A. Planning and protocols;
- B. On-line and off-line medical direction and consultation; and
- C. Audit and evaluation of patient care.

X. EVALUATION

Each State should implement a comprehensive evaluation program to effectively assess and improve a statewide EMS system. EMS system managers should:

- A. Evaluate the effectiveness of services provided to victims of medical or trauma-related emergencies;
- B. Define the impact of patient care on the system;
- C. Evaluate resource utilization, scope of service, patient outcome, and effectiveness of operational policies, procedures, and protocols;
- D. Develop a data-gathering mechanism that provides for the linkage of data from different data sources through the use of common data elements; and
- E. Evaluate both process and impact measures on injury prevention, and public information and education programs.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 12
[Reserved]**

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 13
[Reserved]**

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 14
PEDESTRIAN AND BICYCLE SAFETY**

Each State, in cooperation with its political subdivisions, should have a comprehensive pedestrian and bicycle safety program that educates and motivates its citizens to follow safe pedestrian and bicycle practices. A combination of legislation, regulations, policy, enforcement, public information, education, incentives, and engineering is necessary to achieve significant, lasting improvements in pedestrian and bicycle crash rates, and to reduce resulting deaths and injuries.

Each State should recognize that its pedestrians and bicyclists -- citizens of all ages who are virtually unprotected from the forces of a crash -- face major safety problems and are a valid traffic safety concern. Because of the diverse nature of these issues, education, enforcement, and engineering are critical components to any strategies devised to reduce these problems. In formulating policy, the State should promote these specific issues:

- The provision of early pedestrian and bicycle safety education and training for preschool children;
- The inclusion of pedestrian and bicyclist safety in health and safety education curricula;
- The inclusion of pedestrian and bicyclist safety in driver training programs and driver licensing activities;
- The provision of a safe environment for pedestrians and bicyclists through such measures as sidewalks and bicycle facilities, in the planning and design of all highway projects;
- The use of bicycle helmets as a primary measure to reduce death and injury among bicyclists;
- An awareness of the role of alcohol in crashes involving adult pedestrians;
- The safeguarding of older citizens from crashes involving pedestrians; and
- The establishment and support of Community/Corridor Traffic Safety Programs and other injury prevention programs at the local level.

A comprehensive highway safety system is the most effective means of producing consistent, long-term changes in knowledge and behavior necessary to improve pedestrian and bicycle safety. The following components create a structure for identifying problem areas; implementing, measuring, and evaluating the problem areas; and directing the results back into system improvements. We believe these elements will effectively address the problem.

I. PROGRAM MANAGEMENT

Each State should have centralized program planning, initiation, and coordination to promote pedestrian and bicycle safety program issues as part of a comprehensive highway safety program. Evaluation is also important for determining progress and ultimate success of pedestrian and bicycle safety programs and for providing those results to revise existing programs and to develop new programs. The State should have program staff trained in pedestrian and bicyclist safety so that this program can:

- Conduct regular problem identification activities to identify fatality and injury crash trends for pedestrians and bicyclists and to provide guidance in development of countermeasures;
- Provide leadership, training, and technical assistance to other State agencies and local pedestrian and bicycle safety programs and projects;
- Convene a pedestrian and bicycle safety advisory task force or coalition to organize, integrate with other involved groups, and generate broad-based support for programs;
- Integrate pedestrian and bicycle safety programs into Community/Corridor Traffic Safety Programs, injury prevention programs, and transportation plans; and
- Evaluate the effectiveness of its pedestrian and bicycle safety program.

II. MULTI-DISCIPLINARY INVOLVEMENT

Pedestrian and bicyclist safety goes beyond the confines of any single State or local agency (engineering, education or enforcement) and requires the combined support and coordinated attention of multiple agencies, representing a variety of disciplines, at the State and local level. At a minimum, the following kinds of agencies should be involved:

- Law Enforcement
- Education
- Health and Medicine
- Driver Education and Licensing
- Transportation - Engineering, Planning
- Public Communications

III. LEGISLATION AND REGULATIONS

Each State should enact and enforce pedestrian and bicyclist-related traffic laws and regulations, including laws that require the use of bicycle helmets. Specific policies should be developed to encourage coordination with Federal agencies (including NHTSA and FHWA), in the development of regulations and laws to promote pedestrian and bicyclist safety.

IV. LAW ENFORCEMENT

Each State should ensure that State and community pedestrian and bicycle programs include a law enforcement component. Each State should strongly emphasize the role played by law enforcement personnel in pedestrian and bicyclist safety. Essential components of that role include:

- Developing knowledge of pedestrian and bicyclist crash situations, investigating crashes, and maintaining a report system that supports problem identification and evaluation activities;
- Providing public information and education support;
- Providing training to law enforcement personnel in matters of pedestrian and bicycle safety;
- Establishing agency policies; and
- Coordinating with and supporting education and engineering components.

V. HIGHWAY ENGINEERING

Traffic engineering is a critical element of any crash reduction program. This is true not only for the development of programs to reduce an existing crash problem, but also to design transportation facilities that provide for the safe movement of pedestrians, bicyclists, and all motor vehicles.

Balancing the needs of pedestrians and those of vehicular traffic (including bicycle) must always be considered. Therefore, each State should ensure that State and community pedestrian and bicycle programs include a traffic engineering component. Traffic

engineering efforts should be coordinated with enforcement and educational efforts. This effort should improve the protection of pedestrians and bicyclists by application of appropriate traffic engineering measures in design, construction, operation, and maintenance. These measures should include but not be limited to the following:

- Pedestrian, bicycle and school bus loading zone signals, signs, and markings
- Parking regulations
- Sidewalk design
- Pedestrian pathways
- On-road facilities (signed routes, marked lanes, wide curb lanes, and paved shoulders)
- Off-road bicycle facilities (trails and paths)

VI. PUBLIC INFORMATION AND EDUCATION

Each State should ensure that State and community pedestrian and bicycle programs contain a public information and education component. This component should address school-based education programs, coordination with traffic engineering and law enforcement components, public information and awareness campaigns, and other targeted educational programs such as those for the elderly. These programs should address issues such as:

- Being visible in the traffic system (conspicuity)
- Use of facilities and accommodations
- Law enforcement initiatives
- Proper street crossing behavior
- Safe practices near school buses, including loading and unloading practices
- The nature and extent of the problem
- Driver training with regard to pedestrian and bicycle safety
- Rules of the road
- Proper selection, use and fit of bicycles and bicycle helmets
- Skills training for bicyclists
- Proper use of bicycle equipment
- Sharing the road

The State should enlist the support of a variety of media, including mass media, to improve public awareness of pedestrian and bicyclist crash problems and programs directed at preventing them.

VII. OUTREACH PROGRAM

Each State should encourage extensive community involvement in pedestrian and bicycle safety education by involving individuals and organizations outside the traditional highway safety community. Community involvement broadens public support for the State's programs and can increase a State's ability to deliver highway safety education programs. To encourage community involvement, States should:

- Establish a coalition or task force of individuals and organizations to actively promote safe pedestrian and bicycle safety practices (see Program Management Component);
- Create an effective communications network among coalition members to keep members informed; and
- Provide materials and resources necessary to promote pedestrian and bicycle safety education programs.

VIII. SCHOOL-BASED PROGRAM

Each State should incorporate pedestrian and bicycle safety education into school curricula. Safe walking and bicycle-riding practices to and from school and school-related events are good health habits and, like other health habits, must be taught at an early age and reinforced until the habit is well established. The State Department of Education and the State Highway Safety Agency should:

- Ensure that highway safety in general, and pedestrian and bicycle safety in particular, are included in the State-approved K-12 health and safety education curricula and textbooks;
- Establish and enforce written policies requiring safe walking and bicycling practices to and from school, including use of bicycle helmets on school property; and
- Encourage active promotion of safe walking and bicycling practices (including helmet usage and safe walking and riding practices near school buses) through classroom and extra-curricular activities.

IX. DRIVER EDUCATION AND LICENSING

Each State should address pedestrian and bicycle issues in State driver education and licensing programs. Pedestrian and bicycle safety principles and rules should be included in all driver training and licensing examinations.

X. EVALUATION PROGRAM

Both problem identification and evaluation require good record keeping by the State and its political subdivisions. The State should identify the types and frequency of pedestrian and bicyclist crash problems in terms that are relevant to both the selection and evaluation of appropriate countermeasure programs.

The State should promote effective evaluation of programs by:

- Supporting the continuing analysis of police accident reports (PARs) of pedestrian and bicyclist crashes for both problem identification and program evaluation activities;
- Encouraging, supporting, and training localities in impact and process evaluations of local programs;
- Conducting and publicizing statewide surveys of public knowledge and attitudes about pedestrian and bicyclist safety;

- Maintaining awareness of trends in pedestrian and bicyclist crashes at the national level and how this might influence activities statewide;
- Evaluating the use of program resources and the effectiveness of existing general public and target population countermeasure programs.
- Ensuring that evaluation results are an integral part of new program planning and problem identification.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 15
POLICE TRAFFIC SERVICES**

Each State, in cooperation with its political subdivisions, should have an efficient and effective police traffic services (PTS) program to enforce traffic laws, prevent crashes and their resulting deaths and injuries, assist the injured, document specific details of individual crashes, supervise crash clean-up, and restore safe and orderly movement of traffic. PTS is critical to the success of most traffic safety countermeasures and to the prevention of traffic-related injuries. Traffic law enforcement plays an important role in deterring impaired driving involving alcohol or other drugs, achieving safety belt use, encouraging compliance with speed laws, and reducing other unsafe driving actions. Experience has shown that a combination of highly visible enforcement, public information, education, and training is necessary to achieve a significant and lasting impact in reducing crashes, injuries, and fatalities. At a minimum, a well-balanced statewide PTS program should be made up of the components detailed below.

I. PROGRAM MANAGEMENT

A. Planning and Coordination

Centralized program planning, implementation, and coordination are essential for achieving and sustaining effective PTS programs. The State Highway Safety Agency (SHSA), in conjunction with State, county and local law enforcement agencies, should ensure that these planning and coordinating functions are performed with regard to the State's traffic safety program, since law enforcement is in most instances a principle component of that program. In carrying out its responsibility of centralized program planning and coordination, the State should:

- Provide leadership, training, and technical assistance to State, county and local law enforcement agencies;
- Coordinate PTS and other traffic safety program areas including Commercial Motor Vehicle (CMV) safety activities such as the Motor Carrier Safety Assistance Program;
- Develop and implement a comprehensive plan for all PTS activities, in cooperation with law enforcement leaders;
- Generate broad-based support for enforcement programs; and
- Integrate PTS into community/corridor traffic safety and other injury prevention programs.

B. Program Elements

State, county and local law enforcement agencies, in conjunction with the SHSA, should establish PTS as a priority within their total enforcement program. A PTS program should be built on a foundation of commitment, coordination, planning, monitoring, and evaluation within the agency's enforcement program. State, county and local law enforcement agencies should:

- Provide the public with a high quality, effective PTS system and have enabling legislation and regulations in place to implement PTS functions;
- Develop and implement a comprehensive enforcement plan for impaired driving involving alcohol or other drugs, safety belt use and child passenger safety laws, speeding, and other hazardous moving violations. The plan should initiate action to look beyond the issuance of traffic tickets to include enforcement of laws that cover the more significant portions of the safety problem and that address drivers of all types of vehicles, including trucks, automobiles, and motorcycles;
- Develop a cooperative working relationship with other local, county, and State governmental agencies and community organizations on traffic safety issues;
- Issue and enforce policies on roadside sobriety checkpoints, safety belt use, pursuit driving, crash investigating and reporting, speed enforcement, and serious traffic violations; and
- Develop performance measures for PTS that are both qualitative and quantitative.

II. RESOURCE MANAGEMENT

States should encourage law enforcement agencies to develop and maintain a comprehensive resource management plan to identify and deploy resources needed to effectively support enforcement programs. The resource management plan should include a specific component on traffic enforcement and safety, integrating traffic enforcement and safety initiatives into a total agency enforcement program. Law enforcement agencies should:

- Conduct periodic assessments of service demands and resources to meet identified needs;
- Develop a comprehensive resource management plan, including a specific traffic enforcement and safety component;
- Define the plan in terms of budget requirements and services to be provided; and
- Develop and implement operational policies for the deployment of resources to address program demands and to meet agency goals.

III. TRAFFIC LAW ENFORCEMENT

The enforcement of traffic laws and ordinances is a basic responsibility shared by all law enforcement agencies. The primary objective of this function is to encourage motorists and pedestrians to comply voluntarily with the laws. Administrators should apply their

enforcement resources in ways that ensure the greatest safety impact. Traffic law enforcement programs should be based on:

- Accurate problem identification;
- Countermeasures designed to address specific problems;
- Enforcement actions applied at appropriate times and places, coupled with a public information effort designed to make the motoring public aware of the problem and the planned enforcement action; and
- A system to document and publicize results.

IV. PUBLIC INFORMATION AND EDUCATION

. Necessity of Public Information and Education

Public awareness and knowledge about traffic enforcement are essential for sustaining increased compliance with all traffic laws. This requires a well-organized, effectively-managed public information and education program. The SHSA, in cooperation with law enforcement agencies, should develop a statewide public information and education campaign that:

- Identifies and targets specific audiences;
- Addresses enforcement of safety belt use and child passenger safety, impaired driving involving alcohol or other drugs, speed, and other serious traffic laws;
- Capitalizes on special events, such as Operation C.A.R.E., Child Passenger Safety Awareness, Buckle Up, America! and Drunk and Drugged Driving Awareness campaigns;
- Identifies and supports the efforts of traffic safety activist groups and the health and medical community to gain increased support of and attention to traffic safety and enforcement;
- Uses national themes, events, and materials; and
- Motivates the public to support increased enforcement of traffic laws.

The task of public information can be divided into two interconnected areas: external and internal information. Both areas, properly administered, will benefit the agency and work in concert to accomplish the goal of establishing and maintaining a positive police-public relationship.

A. Development of public information and education functions by law enforcement agencies:

- External
- Educate and remind the public about traffic laws and safe driving behavior;
- Disseminate information to the public about agency activities and accomplishments;
- Enhance relationships with news media and the health and medical community;
- Provide safety education and community services;

- Provide legislative and judicial information and support; and
- Increase the public's understanding of the enforcement agency's role in traffic safety.
- Internal
- Disseminate information about internal activities to sworn and civilian members of the agency;
- Enhance the agency's safety enforcement role and increase employee understanding and support; and
- Recognize employee achievements.

V. DATA COLLECTION AND ANALYSIS

The availability of valid data is critical to any approach intended to increase the level of highway safety. An effective records program provides fast and accurate information to field personnel who are performing primary traffic functions and to management for decision-making. Data are usually collected from crash reports, daily officer activity reports that contain workload and citation information, highway department records (e.g., traffic volume), citizen complaints, and officer observations. An effective records program should:

- Provide information rapidly and accurately;
- Provide routine compilations of data for management use in the decision making process;
- Provide data for operational planning and execution;
- Interface with a variety of data systems, including statewide traffic safety records system; and
- Be accessible to enforcement, planners, and management.

VI. TRAINING

Training is one of the most important activities in a law enforcement agency, and it is essential to support the special requirements of traffic law enforcement and safety. It is essential for operational personnel to be prepared to effectively perform their duties. Traffic enforcement training can be conducted by the agency, the State POST (Police, or Peace, Officer Standards and Training) agency, or a commercial trainer.

. Purpose and Goals of Training

Training accomplishes a wide variety of important and necessary goals. Proper training should:

- Prepare officers to act decisively and correctly;
- Increase compliance with agency enforcement goals;
- Assist in meeting priorities;
- Improve compliance with established policies;
- Result in greater productivity and effectiveness;
- Foster cooperation and unity of purpose;
- Help offset liability actions; and

- Motivate and enhance officer professionalism.
- A. State, county and local law enforcement agencies should:
 - Periodically assess enforcement activities to determine training needs;
 - Require traffic enforcement knowledge and skills in all recruits;
 - Provide traffic enforcement in-service training to experienced officers;
 - Provide specialized CMV in-service training to traffic enforcement officers;
 - Conduct training to implement specialized traffic enforcement skills, techniques, or programs; and
 - Train instructors, to increase agency capabilities and to ensure continuity of specialized enforcement skills and techniques.

VII. EVALUATION

The SHSA, in conjunction with State, county and local law enforcement agencies, should develop a comprehensive evaluation program to measure progress toward established project goals and objectives; effectively plan and implement statewide, county and local PTS programs; optimize the allocation of limited resources; measure the impact of traffic enforcement on reducing crime and traffic crashes, injuries, and deaths; and compare costs of criminal activity to costs of traffic crashes. Law enforcement managers should:

- Include evaluation in initial program planning efforts to ensure that data will be available and that sufficient resources will be allocated;
- Report results regularly to project and program managers, to police field commanders and officers, and to the public and private sectors;
- Use results to guide future activities and to assist in justifying resources to legislative bodies;
- Conduct a variety of surveys to assist in determining program effectiveness, such as roadside sobriety surveys, speed surveys, license checks, belt use surveys, and surveys measuring public knowledge and attitudes about traffic enforcement programs;
- Evaluate the effectiveness of services provided in support of priority traffic safety areas; and
- Maintain and report traffic data to the International Association of Chiefs of Police Traffic Data Report and other appropriate repositories, such as the FBI Uniform Crime Report, FHWA's SAFETY NET system, and annual statewide reports.

HIGHWAY SAFETY PROGRAM GUIDELINE No. 16 DEBRIS HAZARD CONTROL AND CLEANUP

Each State in cooperation with its political subdivisions should have a program which provides for rapid, orderly, and safe removal from the roadway of wreckage, spillage, and debris resulting

from motor vehicle accidents, and for otherwise reducing the likelihood of secondary and chain-reaction collisions, and conditions hazardous to the public health and safety.

- I. The program should provide as a minimum that:
 - A. Operational procedures are established and implemented for:
 1. Enabling rescue and salvage equipment personnel to get to the scene of accidents rapidly and to operate effectively on arrival:
 - a. On heavily traveled freeways and other limited access roads;
 - b. In other types of locations where wreckage or spillage of hazardous materials on or adjacent to highways endangers the public health and safety;
 2. Extricating trapped persons from wreckage with reasonable care-both to avoid injury or aggravating existing injuries;
 3. Warning approaching drivers and detouring them with reasonable care past hazardous wreckage or spillage;
 4. Safe handling of spillage or potential spillage of materials that are:
 - a. Radioactive
 - b. Flammable
 - c. Poisonous
 - d. Explosive
 - e. Otherwise hazardous.
 5. Removing wreckage or spillage from roadways or otherwise causing the resumption of safe, orderly traffic flow.
 - B. Adequate numbers of rescue and salvage personnel are properly trained and retained in the latest accident cleanup techniques.
 - C. A communications system is provided, adequately equipped and manned, to provide coordinated effort in incident detection, and the notification, dispatch, and response of appropriate services.
- II. The program should be periodically evaluated by the State, and the National Highway Traffic Safety Administration should be provided with an evaluation summary.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 17
PUPIL TRANSPORTATION SAFETY**

- I. Scope. This guideline establishes minimum recommendations for a State highway safety program for pupil transportation safety including the identification, operation, and maintenance of buses used for carrying students: training of passengers, pedestrians, and bicycle riders; and administration.
- II. Purpose. The purpose of this guideline is to minimize, to the greatest extent possible the danger of death or injury to school children while they are traveling to and from school and school-related events.
- III. Definition.

Bus

A motor vehicle designed for carrying more than 10 persons (including the driver).

Federal Motor Carrier Safety Regulations (FMCSR)

The regulations of the Federal Highway Administration (FHWA) for commercial motor vehicles in interstate commerce, including buses with a gross vehicle weight rating (GVWR) greater than 10,000 pounds or designed to carry 16 or more persons (including the driver), other than buses used to transport school children from home to school and from school to home. (The FMCSR are set forth in 49 CFR parts 383-399.)

School-chartered bus

A "bus" that is operated under a short-term contract with State or school authorities who have acquired the exclusive use of the vehicle at a fixed charge to provide transportation for a group of students to a special school-related event.

School bus

A "bus" that is used for purposes that include carrying students to and from school or related events on a regular basis, but does not include a transit bus or a school-chartered bus.

- IV. Pupil Transportation Safety Program Administration and Operations.-- Recommendation. Each State, in cooperation with its school districts and other political subdivisions, should have a comprehensive pupil transportation safety program to ensure that school buses and school-chartered buses are operated and maintained so as to achieve the highest possible level of safety.
- A. Administration.
1. There should be a single State agency having primary administrative responsibility for pupil transportation, and employing at least one full-time professional to carry out these responsibilities.
 2. The responsible State agency should develop an operating system for collecting and reporting information needed to improve the safety of operating school buses and school-chartered buses. This includes the collection and evaluation of uniform crash data consistent with the criteria set forth in Highway Safety Program Guidelines No. 10, "Traffic Records" and No. 18, "Accident Investigation and Reporting. "
- B. Identification and equipment of school buses. Each State should establish procedures to meet the following recommendations for identification and equipment of school buses.
1. All school buses should:
 - a. Be identified with the words "School Bus" printed in letters not less than eight inches high, located between the warning signal lamps as high as possible without impairing visibility of the lettering from both front and rear, and have no other lettering on the front or rear of the vehicle, except as required by Federal Motor Vehicle Safety Standards (FMVSS), 49 CFR part 571.
 - b. Be painted National School Bus Glossy Yellow, in accordance with the colorimetric specification of National Institute of Standards and Technology (NIST) Federal Standard No. 595a, Color 13432, except that the hood should be either that color or

lusterless black, matching NIST Federal Standard No. 595a, Color 37038.

- c. Have bumpers of glossy black, matching NIST Federal Standard No. 595a, Color 17038, unless, for increased visibility, they are covered with a reflective material.
 - d. Be equipped with safety equipment for use in an emergency, including a charged fire extinguisher, that is properly mounted near the driver's seat, with signs indicating the location of such equipment.
 - e. Be equipped with device(s) demonstrated to enhance the safe operation of school vehicles, such as a stop signal arm.
 - f. Be equipped with a system of signal lamps that conforms to the school bus requirements of FMVSS No. 108, 49 CFR 571.108.
 - g. Have a system of mirrors that conforms to the school bus requirements of FMVSS No. 111, 49 CFR 571.111.
 - h. Comply with all FMVSS applicable to school buses at the time of their manufacture.
2. Any school bus meeting the identification recommendations of sections 1, a-h above that is permanently converted for use wholly for purposes other than transporting children to and from school or school-related events should be painted a color other than National School Bus Glossy Yellow, and should have the stop arms and school bus signal lamps described by sections 1, e & f removed.
 3. School buses, while being operated on a public highway and transporting primarily passengers other than school children, should have the words "School Bus" covered, removed, or otherwise concealed, and the stop arm and signal lamps described by sections 1, e & f should not be operated.
 4. School-chartered buses should comply with all applicable FMCSR and FMVSS.
- C. Operations. Each State should establish procedures to meet the following recommendations for operating school buses and school-chartered buses:
1. Personnel.
 - a. Each State should develop a plan for selecting, training, and supervising persons whose primary duties involve transporting school children in order to ensure that such persons will attain a high degree of competence in, and knowledge of, their duties.
 - b. Every person who drives a school bus or school-chartered bus occupied by school children should, as a minimum:
 1. Have a valid State driver's license to operate such a vehicle. All drivers who operate a vehicle designed to carry 16 or more persons (including the driver) are required by FHWA's Commercial Driver's License Standards by April 1, 1992 (49 CFR part 383) to have a valid commercial driver's license;
 2. Meet all physical, mental, moral and other requirements established by the State agency having primary

- responsibility for pupil transportation, including requirements for drug and/or alcohol misuse or abuse; and
3. Be qualified as a driver under the Federal Motor Carrier Safety Regulations of the FHWA. 49 CFR part 391. if the driver or the driver's employer is subject to those regulations.

2. Vehicles.

- a. Each State should enact legislation that provides for uniform procedures regarding school buses stopping on public highways for loading and discharge of children. Public information campaigns should be conducted on a regular basis to ensure that the driving public fully understands the implications of school bus warning signals and requirements to stop for school buses that are loading or discharging school children.
- b. Each State should develop plans for minimizing highway use hazards to school bus and school-chartered bus occupants, other highway users, pedestrians, bicycle riders and property. They should include, but not be limited to:
 1. Careful planning and annual review of routes for safety hazards;
 2. Planning routes to ensure maximum use of school buses and school chartered buses, and to ensure that passengers are not standing while these vehicles are in operation;
 3. Providing loading and unloading zones off the main traveled part, of highways, whenever it is practical to do so;
 4. Establishing restricted loading and unloading areas for school buses and school-chartered buses at or near schools;
 5. Ensuring that school bus operators, when stopping on a highway to take on or discharge children, adhere to State regulations for loading and discharging including the use of signal lamps as specified in section B.1.f. of this guideline;
 6. Prohibiting, by legislation or regulation, operation of any school bus unless it meets the equipment and identification recommendations of this guideline; and
 7. Replacing, consistent with the economic realities which typically face school districts, those school buses which are not manufactured to meet the April 1, 1977 FMVSS for school buses, with those manufactured to meet the stricter school bus standards, and not chartering any pre-1977 school buses.
 8. Informing potential buyers of pre 1977 school buses that these buses may not meet current standards for newly manufactured buses and of the need for continued maintenance of these buses and adequate safety instruction.
- c. Use of amber signal lamps to indicate that a school bus is preparing to stop to load or unload children is at the option of the

State. Use of red warning signal lamps as specified in section B, 1, f, of this guideline for any purpose or at any time other than when the school bus is stopped to load or discharge passengers should be prohibited.

d. When school buses are equipped with stop arms, such devices should be operated only in conjunction with red warning signal lamps, when vehicles are stopped.

e. Seating.

1. Standing while school buses and school-chartered buses are in motion should not be permitted. Routing and seating plans should be coordinated so as to eliminate passengers standing when a school bus or school chartered bus is in motion.

2. Seating should be provided that will permit each occupant to sit in a seat intended by the vehicle's manufacturer to provide accommodation for a person at least as large as a 5th percentile adult female, as defined in 49 CFR 571.208. Due to the variation in sizes of children of different ages, States and school districts should exercise judgment in deciding how many students are actually transported in a school bus or school -chartered bus.

3. There should be no auxiliary seating accommodations such as temporary or folding jump seats in school buses.

4. Drivers of school buses and school-chartered buses should be required to wear occupant restraints whenever the vehicle is in motion.

5. Passengers in school buses and school-chartered buses with a gross vehicle weight rating (GVWR) of 10,000 pounds or less should be required to wear occupant restraints (where provided) whenever the vehicle is in motion. Occupant restraints should comply with the requirements of FMVSS Nos. 208, 209 and 210, as they apply to multipurpose vehicles.

f. Emergency exit access. Baggage and other items transported in the passenger compartment should be stored and secured so that the aisles are kept clear and the door(s) and emergency exit(s) remain unobstructed at all times. When school buses are equipped with interior luggage racks, the racks should be capable of retaining their contents in a crash or sudden driving maneuver.

D. Vehicle maintenance. Each State should establish procedures to meet the following recommendations for maintaining buses used to carry school children:

1. School buses should be maintained in safe operating condition through a systematic preventive maintenance program.

2. All school buses should be inspected at least semiannually. In addition, school buses and school-chartered buses subject to the Federal Motor

- Carrier Safety Regulations of FHWA should be inspected and maintained in accordance with those regulations (49 CFR Parts 393 and 396).
3. School bus drivers should be required to perform daily pre-trip inspections of their vehicles, and the safety equipment thereon (especially fire extinguishers), and to report promptly and in writing any problems discovered that may affect the safety of the vehicle's operation or result in its mechanical breakdown. Pre-trip inspection and condition reports for school buses and school-chartered buses subject to the Federal Motor Carrier Safety Regulations of FHWA should be performed in accordance with those regulations (49 CFR 392.7, 392.8, and 396).
- E. Other Aspects of Pupil Transportation Safety.
1. At least once during each school semester, each pupil transported from home to school in a school bus should be instructed in safe riding practices, proper loading and unloading techniques, proper street crossing to and from school bus stops and should participate in supervised emergency evacuation drills, which are timed. Prior to each departure, each pupil transported on an activity or field trip in a school bus or school-chartered bus should be instructed in safe riding practices and on the location and operation of emergency exits.
 2. Parents and school officials should work together to select and designate the safest pedestrian and bicycle routes for the use of school children.
 3. All school children should be instructed in safe transportation practices for walking to and from school. For those children who routinely walk to school, training should include preselected routes and the importance of adhering to those routes.
 4. Children riding bicycles to and from school should receive bicycle safety education, wear bicycle safety helmets, and not deviate from preselected routes.
 5. Local school officials and law enforcement personnel should work together to establish crossing guard programs.
 6. Local school officials should investigate programs which incorporate the practice of escorting students across streets and highways when they leave school buses. These programs may include the use of school safety patrols or adult monitors.
 7. Local school officials should establish passenger vehicle loading and unloading points at schools that are separate from the school bus loading zones.
- V. Program evaluation. The pupil transportation safety program should be evaluated at least annually by the State agency having primary administrative responsibility for pupil transportation.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 18
ACCIDENT INVESTIGATION AND REPORTING**

- I. Scope. This guideline establishes the requirement that each State should have a highway safety program for accident investigation and reporting.
- II. Purpose. The purpose of this guideline is to establish a uniform, comprehensive motor vehicle traffic accident investigation program for gathering information -- who, what, when, where, why, and how -- on motor vehicle traffic accidents and associated deaths, injuries, and property damage; and entering the information into the traffic records system for use in planning, evaluating, and furthering highway safety program goals.
- III. Definitions. For the purpose of this guideline the following definitions apply:

Accident

an unintended event resulting in injury or damage, involving one or more motor vehicles on a highway that is publicly maintained and open to the public for vehicular travel.

Highway

the entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel.

Motor vehicle

any vehicle driven or drawn by mechanical power manufactured primarily for use on the public streets, roads, and highways. except any vehicle operated exclusively on a rail or rails.

- IV. Requirements. Each State, in cooperation with its political subdivisions, should have an accident investigation program. A model program would be structured as follows:
 - A. Administration.
 1. There should be a State agency having primary responsibility for administration and supervision of storing and processing accident information. and providing information needed by user agencies.
 2. There should be employed at all levels of government adequate numbers of personnel, properly trained and qualified, to conduct accident investigations and process the resulting information.
 3. Nothing in this guideline should preclude the use of personnel other than police officers, in carrying out the requirements of this guideline in accordance with laws and policies established by State and/or local governments.
 4. Procedures should be established to assure coordination, cooperation, and exchange of information among local, State, and Federal agencies having responsibility for the investigation of accidents and subsequent processing of resulting data.
 5. Each State should establish procedures for entering accident information into the statewide traffic records system established pursuant to Highway Safety Program Guideline No. 10. Traffic Records, and for assuring uniformity and compatibility of this data with the requirements of the system, including as a minimum:
 - a. Use of uniform definitions and classifications acceptable to the National Highway Traffic Safety Administration and identified in the Highway Safety Program Manual.

- b. A guideline format for, input of data into the statewide traffic records system.
 - c. Entry into the statewide traffic records system of information gathered and submitted to the responsible State agency.
 - B. Accident reporting. Each State should establish procedures which require the reporting of accidents to the responsible State agency within a reasonable time after occurrence.
 - C. Owner and driver reports.
 - 1. In accidents involving only property damage, where the vehicle can be normally and safely driven away from the scene, the drivers or owners of vehicles involved should be required to submit a written report consistent with State reporting requirements, to the responsible State agency. A vehicle should be considered capable of being normally and safely driven if it does not require towing and can be operated under its own power, in its customary manner, without further damage or hazard to itself, other traffic elements, or the roadway. Each report so submitted should include, as a minimum, the following information relating to the accident:
 - a. Location.
 - b. Time.
 - c. Identification of driver(s).
 - d. Identification of pedestrian(s), passenger(s), or pedal-cyclist(s).
 - e. Identification of vehicle(s).
 - f. Direction of travel of each unit.
 - g. Other property involved.
 - h. Environmental conditions existing at the time of the accident.
 - i. A narrative description of the events and circumstances leading up to the time of impact, and immediately after impact.
 - 2. In all other accidents, the drivers or owners of motor vehicles involved should be required to immediately notify the police of the jurisdiction in which the accident occurred. This includes, but is not limited to accidents involving: (1) Fatal or nonfatal personal injury or (2) damage to the extent that any motor vehicle involved cannot be driven under its own power in its customary manner, without further damage or hazard to itself, other traffic elements, or the roadway, and therefore requires towing.
 - D. Accident investigation. Each State should establish a plan for accident investigation and reporting which should meet the following criteria:
 - 1. Police investigation should be conducted of all accidents as identified in section IV.C.2. of this guideline 18. Information gathered should be consistent with the police mission of detecting and apprehending law violators, and should include, as a minimum, the following:
 - a. Violation(s), if any occurred, cited by section and subsection, numbers and titles of the State code, that (1) contributed to the accident where the investigating officer has reason to believe that violations were committed regardless of whether the officer has sufficient evidence to prove the violation(s); and (2) for which the driver was arrested or cited.

- b. Information necessary to prove each of the elements of the offense(s) for which the driver was arrested or cited.
 - c. Information, collected in accordance with the program established under Highway Safety Program Guide line No. 15, Police Traffic Services, section I-D, relating to human, vehicular, and highway factors causing individual accidents, injuries, and deaths, including failure to use safety belts.
 - 2. Accident investigation teams should be established, representing different interest areas, such as police; traffic; highway and automotive engineering; medical; behavioral; and social sciences. Data gathered by each member of the investigation team should be consistent with the mission of the member's agency, and should be for the purpose of determining probable causes of accidents, injuries, and deaths. These teams should conduct investigations of an appropriate sampling of accidents in which there were one or more of the following conditions:
 - a. Locations that have a similarity of design, traffic engineering characteristics, or environmental conditions, and that have a significantly large or disproportionate number of accidents.
 - b. Motor vehicles or motor vehicle parts that are involved in a significantly large or disproportionate number of accidents or injury-producing accidents.
 - c. Drivers, pedestrians, and vehicle occupants of a particular age, sex, or other grouping, who are involved in a significantly large or disproportionate number of motor vehicle traffic accidents or injuries.
 - d. Accidents in which causation or the resulting injuries and property damage are not readily explainable in terms of conditions or circumstances that prevailed.
 - e. Other factors that concern State and national emphasis programs.
- V. Evaluation. The program should be evaluated at least annually by the State. Substance of the evaluation report should be guided by Chapter V of the Highway Safety Program Manual. The National Highway Traffic Safety Administration should be provided with a copy of the evaluation report.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 19
SPEED CONTROL**

Each State, in cooperation with its political subdivisions, should have, as part of a comprehensive highway safety program, an effective speed control program that encourages its citizens to voluntarily comply with speed limits. The program should stress systematic and rational establishment of speed limits, a law enforcement commitment to controlling speed on all public roads, a commitment to utilize both traditional methods and state-of-the art equipment in

setting and enforcing speed limits, and a strong public information and education program aimed at increasing driver compliance with speed limits.

I. PROGRAM MANAGEMENT

State and local law enforcement agencies, transportation departments, and the State Highway Safety Agency (SHSA) should establish speed control as a priority within their total highway safety program. The speed control program should contain the following elements: program management, procedures for establishing reasonable speed limits, coordinated enforcement efforts, public information and education, identification and utilization of new technology, legislative coordination and commitment, training, and evaluation. When planning and developing a program to address speed control, the issue of speed should be examined in light of the empirical data available, current methods for setting speed limits, and the current public perception of speed compliance. Added to these elements is the law enforcement response, including the resources available to enforcement agencies. Only after these components have been examined and defined can the goals of a speed control program be formulated. In carrying out its responsibility of centralized program planning and coordination, the State should:

- Develop and implement a comprehensive speed control plan in cooperation with law enforcement leaders, traffic engineers, educators, injury control professionals, and leaders of the community;
- Provide leadership, training, and technical assistance to State and local law enforcement agencies and highway/traffic agencies;
- Generate broad based support for speed control programs through education on the scope and severity of the problem; and
- Integrate speed control into the overall traffic enforcement and engineering program.

II. ENFORCEMENT PROGRAM

Each State should strongly emphasize speed enforcement as part of its overall traffic enforcement program. The speed enforcement program should include enforcement strategies and other components of a comprehensive approach to address the speed issue. The plan should address the following concepts:

- Including public information and education components along with vigorous enforcement in State and local anti-speeding programs;
- Collecting data to help in problem identification and evaluation;
- Identifying high risk crash locations where speed or speed variance is a contributing factor in crashes;
- Integrating speed control programs into related highway safety activities such as drunk driving prevention, safety belt and safety programs for young people and other injury control activities;
- Targeting anti-speeding programs to address specific audiences and situations: young drivers, males, nighttime, adverse weather and traffic conditions (i.e., travel at speeds unsafe for conditions), drunk driving, commercial motor vehicle

(CMV) drivers, school zones, construction and maintenance work zones, and roads and streets with major potential conflicts in traffic and with pedestrians and bicyclists;

- Using speed measuring devices that are both efficient and cost effective, including new speed measurement technology such as laser (LIDAR) speed measuring devices, electronic signing and photo-radar; and
- Training officers in the proper use of equipment and educating other members of the criminal justice system, such as judges and prosecutors, on the principles of devices using new technology.

III. SETTING OF SPEED LIMITS

States and local governments should undertake comprehensive efforts to identify rational criteria for establishing speed limits and should include strategies to address the speed issue. These efforts should include:

- Identification of criteria used to establish speed limits, including the recognition of unique operational characteristics of CMV's;
- Use of state-of-the art technology to collect data to establish speed limits;
- Use of variable message speed limit signs to reinforce the appropriate speed limit for prevailing conditions;
- Identification of high hazard locations where speeding is a contributing factor;
- Coordination of an effort with enforcement agencies, educators, and community leaders to provide information on setting of speed limits; and
- Training of traffic and enforcement personnel in the proper techniques for establishing safe and reasonable speed limits and in the use and deployment of speed monitoring equipment.

IV. PUBLIC INFORMATION AND EDUCATION

Focused public information and education campaigns are an essential part of a comprehensive speed control program. Research shows that compliance with and support for traffic laws can be increased through aggressive, targeted enforcement combined with an effective public information and education campaign. The SHSA, in cooperation with law enforcement and transportation agencies, should develop a Statewide public information and education campaign that:

- Identifies and targets specific audiences;
- Addresses criteria for setting speed limits and enforcement of speed limits particularly for locations experiencing excessive speed, speed variance, travel at speeds unsafe for conditions, or speed related crashes;
- Capitalizes on special events (cooperative, multi-jurisdictional enforcement efforts) and special holiday enforcement programs;
- Identifies and supports the efforts of traffic safety activist groups and members of the health and medical communities to gain increased support of and attention to speed control, traffic safety, and injury control issues;
- Uses national themes, events, and materials; and

- Motivates the public to support speed control by pointing out the public health issues of injury, death, and medical and other economic costs of speed related crashes.

V. TECHNOLOGY

New and updated technology for speed measurement is needed to determine appropriate speed limits for a variety of conditions and to achieve maximum enforcement activity with fewer available resources. Current technology for measuring speed, such as loop detectors, should be used not only to establish viable speed limits but also to vary speed limits to conform to existing conditions. For enforcement activities, State and local governments should only utilize speed measurement equipment that is approved or recognized as reliable and accurate. All law enforcement agencies should use the International Association of Chiefs of Police (IACP) regional testing laboratories to ensure that equipment used to measure speeds meets minimum standards. For CMV enforcement purposes, the FHWA will provide MCSAP funding only for those items of speed control equipment approved by the IACP or which meet other suitable standards. The SHSA, in conjunction with law enforcement and traffic/highway agencies, should support programs providing for:

- Collection of operational speed data to determine appropriate speed limits and for use of these data in conjunction with variable message signs;
- Police Radar and Laser (LIDAR) Model Minimum Specifications - NHTSA, in cooperation with the IACP and the National Institute of Standards and Technology (NIST), has developed model specifications and testing protocols for speed control devices. Using these model specifications, IACP in cooperation with manufacturers and NHTSA, has established a program to test speed control devices that are available for purchase by law enforcement agencies. Reports of the testing were published by IACP along with a Consumer Products List which provides law enforcement agencies with the names of devices conforming with the model performance specifications.
- Police Radar and Laser (LIDAR) Testing Program - To ensure that law enforcement agencies can continue to purchase and operate accurate speed control devices, IACP, in cooperation with manufacturers and NHTSA, has established an ongoing process of performance testing for newly developed devices and for maintaining existing equipment. Testing laboratories have been established at five universities. These laboratories will continue the testing program and will provide services to the law enforcement community.
- Model Performance Specifications and Test Protocols - NIST, Law Enforcement Standards Laboratory, is developing model minimum performance and testing protocols for automated speed enforcement (ASE) devices, including photo-radar devices;
- Basic Training Program in VASCAR Speed Measurement - NHTSA has developed a training course for the VASCAR (Visual Average Speed Computer and Recorder) time-distance speed measurement devices. This course was developed specifically for use by law enforcement officers; and

- Basic Training Program in Radar Speed Measurement - NHTSA has developed a basic training course which teaches the correct procedures for law enforcement's use of police radar and also the proper instructional techniques for those teaching the course.

VI. LEGISLATION

To encourage voluntary compliance by drivers, speed limits must be safe, reasonable, and uniform to the greatest extent possible. Realistic speed limits on roadways should:

- Be based upon traffic and engineering investigations;
- Encourage drivers to comply with the posted limits and allow enforcement agencies to better target speeders;
- Be accompanied by sanctions, including court and administrative penalties, which are set by law;
- Be as consistent as possible with the physical and operational characteristics (actual and perceived) of the roadway; and
- Take into account the needs and safety of all highway users, motorists and non-motorists alike.

Legislative components of an effective speed control program should:

- Encourage the highway safety community to develop laws, rules, and regulations that will provide for reasonable and safe speed limits;
- Provide appropriate legislation to allow the establishment of regulatory variable speed limits, such as the provisions of Chapter 11, Article VIII of the Uniform Vehicle Code;
- Provide for public information and education programs to explain how speed limits are established and to convince drivers that speed limits are realistic, reasonable, and include sanctions; and
- Establish sanctions for speeding violations that are reasonable, uniform, and effective as a deterrent.

New devices and technology are available for use in determining appropriate speed limits and in law enforcement actions to measure the speed of vehicles. Transportation and law enforcement agencies should work closely with the SHSA to make certain new technologies can be used under existing legislation. As necessary, these groups should work together in ensuring development and adoption of legislation allowing use of new technologies.

VII. TRAINING

NHTSA fully supports and encourages training for law enforcement officers in the use of speed measurement devices, model speed enforcement strategies, combined enforcement projects, and planning and implementing public information and education programs.

In support of law enforcement training, NHTSA will continue to publish and widely distribute training programs. These courses are related to established as well as new and emerging techniques of speed measurement and enforcement. The training courses are recommended for officers in law enforcement agencies using speed measuring devices. FHWA also provides training programs on CMV traffic enforcement.

Training for law enforcement officers involved in speed enforcement should include:

- Proper use of devices used to measure speed;
- How to use data and analysis to define the speed problem, to target enforcement activities, and to evaluate the results of countermeasures;
- How to relate speed enforcement to public safety;
- How to plan and implement a PI&E program on speed enforcement;
- Model speed enforcement strategies including examples of combined enforcement programs; and
- Assisting traffic engineers and technicians in deployment and use of speed measuring equipment.

Training for traffic engineers and technicians should include:

- Proper use and development of speed measurement equipment;
- Developing guidelines for setting speed limits;
- Establishing appropriate signing policies;
- Investigating alternative approaches to speed control (e.g., signing, stripping, channeling, barriers, speed undulations); and
- Interpreting geometric, operational and environmental data for their impact on roadway safety and user performance.

VIII. EVALUATION

The SHSA, in conjunction with State and local law enforcement and transportation agencies should develop a comprehensive evaluation program to measure progress toward established project goals and objectives. The evaluation should measure the impact of speed control programs on traffic crashes, injuries, and deaths; and provide information for revised improved program planning. These agencies should:

- Include evaluation in initial program planning efforts to ensure that data will be available and that sufficient resources will be allocated;
- Report results regularly to project and program managers, to police field commanders and officers, to transportation engineers, to members of the highway safety and health and medical communities, and to the public and private sectors;
- Use results to verify problem identification, guide future speed control activities, and assist in justifying resources to legislative bodies;
- Conduct a variety of surveys to assist in determining program effectiveness, such as speed surveys and surveys measuring public knowledge and attitude about speed control programs;

- Analyze speed compliance and speed-related crashes in areas with actual hazards to the public;
- Evaluate the effectiveness of speed control activities provided in support of other priority traffic safety areas; and
- Maintain and report traffic data to the SHSA, IACP Traffic Data Report and other appropriate repositories, such as the FBI Uniform Crime Reports, FHWA's SAFETYNET system, and annual statewide reports.

**HIGHWAY SAFETY PROGRAM
GUIDELINE No. 20
OCCUPANT PROTECTION**

Each State, in cooperation with its political subdivisions, should have a comprehensive occupant protection program that educates and motivates its citizens to use available motor vehicle occupant protection systems. A combination of use requirements, enforcement, public information, education, and incentives is necessary to achieve significant, lasting increases in safety belt usage, which will prevent fatalities and control the number and severity of injuries. Therefore, a well-balanced State occupant protection program should include the components described below.

I. PROGRAM MANAGEMENT

Each State should have centralized program planning, implementation and coordination to achieve and sustain high rates of safety belt use. Evaluation is also important for determining progress and ultimate success of occupant protection programs. The State Highway Safety Agency (SHSA) should:

- Provide leadership, training, and technical assistance to other state agencies and local occupant protection programs and projects;
- Convene an occupant protection advisory task force or coalition to organize and generate broad-based support for programs;
- Integrate occupant protection programs into community/corridor traffic safety and other injury prevention programs; and
- Evaluate the effectiveness of its occupant protection program.

II. LEGISLATION, REGULATION, AND POLICY

Each State should enact and enforce occupant protection use laws, regulations, and policies to provide clear guidance to the motoring public concerning motor vehicle occupant protection systems. This legal framework should include:

- Legislation, permitting primary enforcement, requiring all motor vehicle occupants to use the systems provided by the vehicle manufacturer and educational programs to explain their benefits and the correct way to use them;

- Legislation, permitting primary enforcement, requiring children up to 40 pounds (or five years old if weight cannot be determined) to ride in a safety device certified by the manufacturer to meet all applicable Federal performance standards;
- Regulations requiring employees of all levels of government to wear safety belts when traveling on official business;
- Official policy requiring that organizations receiving Federal highway safety program grant funds have and enforce an employee safety belt use policy; and
- Encouragement for automobile insurers to offer economic incentives for policy holders to wear safety belts, to secure small children in child safety seats, and to purchase cars equipped with air bags.

III. ENFORCEMENT PROGRAM

Each State should have a strong law enforcement program, coupled with public information and education, to increase safety belt and child safety seat use. Essential components of a law enforcement program include:

- Written, enforced belt use policies for law enforcement agencies with sanctions for noncompliance to protect law enforcement officers from harm and for officers to serve as role models for the motoring public;
- Vigorous enforcement of public safety belt use and child safety seat laws, including citations and warnings;
- Accurate reporting of occupant protection system information on accident report forms, including use or non-use of belts or child safety seats, type of belt, and presence of and deployment of air bag;
- Public information and education (PI&E) campaigns to inform the public about occupant protection laws and related enforcement activities;
- Routine monitoring of citation rates for non-use of safety belts and child safety seats; and
- Certification of an occupant protection training course for both basic and in-service training by the Police (or Peace) Officer Standards and Training (POST) board.

IV. PUBLIC INFORMATION AND EDUCATION PROGRAM

As part of each State's public information and education program, the State should enlist the support of a variety of media, including mass media, to improve public awareness and knowledge about safety belts, air bags, and child safety seats. To sustain or increase rates of safety belt and child safety seat use, a well-organized, effectively managed public information program should:

- Identify and target specific audiences, (e.g., low-use, high risk motorists) and develop messages appropriate for these audiences;
- Address the enforcement of the State's belt use and child passenger safety laws; the safety benefits of regular, correct safety belt (both manual and automatic) and child safety seat use; and the additional protection provided by air bags;

- Capitalize on special events, such as nationally recognized safety and injury prevention weeks and local enforcement campaigns;
- Coordinate different materials and media campaigns where practicable, (e.g., by using a common theme and logo);
- Use national themes and materials to the fullest extent possible;
- Publicize belt-use surveys and other relevant statistics;
- Encourage news media to report belt use and non-use in motor vehicle crashes;
- Involve media representatives in planning and disseminating public information campaigns;
- Encourage private sector groups to incorporate belt-use messages into their media campaigns;
- Take advantage of all media outlets: television, radio, print, signs, billboards, theaters, sports events, health fairs; and
- Evaluate all media campaign efforts

V. HEALTH/MEDICAL PROGRAM

Each State should integrate occupant protection into health programs. The failure of drivers and passengers to use occupant protection systems is a major public health problem that must be recognized by the medical and health care communities. The SHSA, the State Health Department, and other State or local medical organizations should collaborate in developing programs that:

- Integrate occupant protection into professional health training curricula and comprehensive public health planning;
- Promote occupant protection systems as a health promotion/injury prevention measure;
- Require public health and medical personnel to use available motor vehicle occupant protection systems when on the job;
- Provide technical assistance and education about the importance of motor vehicle occupant protection to primary caregivers, (e.g., doctors, nurses, clinic staff);
- Include questions about safety belt use in health risk appraisals;
- Utilize health care providers as visible public spokespersons for belt use and child safety seat use;
- Provide information about availability of child safety seats through maternity hospitals and other pre-natal and natal care centers (see Program Component VI: Child Passenger Safety Program); and
- Collect, analyze, and publicize data on additional injuries and medical expenses resulting from non-use of occupant protection devices.

VI. CHILD PASSENGER SAFETY PROGRAM

Each State should vigorously promote the use of child safety seats. States should require every child up to 40 pounds to ride correctly secured in a child safety seat that meets Federal Motor Vehicle Safety Standards (see Program Component II: Legislation, Regulation, and Policy). State and community child passenger safety programs that will help to achieve that objective should be established to:

- Educate parents, pediatricians, hospitals, law enforcement, EMS and the general public about the safety risks to small children, the benefits of child safety seats, and their responsibilities for compliance with child passenger safety laws;
- Encourage child safety seat retailers and auto dealers to provide information about child seat and vehicle compatibility, as well as correct use;
- Require safe child transportation policies for certification of pre-school and day care providers;
- Require hospitals to ensure that newborn and other small children are correctly secured in an approved child safety seat or safety belt upon discharge;
- Make child safety seats available at affordable cost to low-income families, with appropriate education on how to use them; and
- Encourage local law enforcement to vigorously enforce child passenger safety laws, including safety belt use laws as they apply to children.

VII. SCHOOL-BASED PROGRAM

Each State should incorporate occupant protection education in school curricula. Buckling up is a good health habit and, like other health habits, must be taught at an early age and reinforced until the habit is well established. The State Department of Education and the State Highway Safety Agency should:

- Ensure that highway safety and traffic-related injury control in general, and occupant protection in particular, are included in the State-approved K-12 health and safety education curricula and textbooks;
- Establish and enforce written policies requiring that school employees operating a motor vehicle on the job use safety belts; and
- Encourage active promotion of regular safety belt use through classroom and extra-curricular activities as well as in the school-based health clinics.

VIII. WORKSITE PROGRAM

Each State should encourage all employers to require safety belt use on the job as a condition of employment. The Federal government has already taken that step for its employees. Private sector employers should follow the lead of Federal and State government employers and comply with all applicable FHWA Federal Motor Carrier Safety Regulations or Occupational Health and Safety (OSHA) regulations requiring private business employees to use safety belts on the job. All employers should:

- Establish and enforce a safety belt use policy with sanctions; and
- Conduct occupant protection education programs for employees on their belt use policies and the safety benefits of motor vehicle occupant protection.

IX. OUTREACH PROGRAM

Each State should encourage extensive community involvement in occupant protection education by involving individuals and organizations outside the traditional highway safety community. Community involvement broadens public support for the State's programs and can increase a State's ability to deliver highway safety education programs. To encourage community involvement, States should:

- Establish a coalition or task force of individuals and organizations to actively promote use of occupant protection systems;
- Create an effective communications network among coalition members to keep members informed; and
- Provide materials and resources necessary to conduct occupant protection education programs, especially directed toward young people, in local settings.

X. EVALUATION PROGRAM

Each State should conduct several different types of evaluation to effectively measure progress and to plan and implement new program strategies. Program management should:

- Conduct and publicize at least one statewide observational survey of safety belt and child safety seat use annually, making every effort to ensure that it meets applicable federal guidelines;
- Maintain trend data on child safety seat use, safety belt use, and air bag deployment in fatal crashes;
- Identify target populations through observational surveys and crash statistics;
- Conduct and publicize statewide surveys of public knowledge and attitudes about occupant protection laws and systems;
- Obtain monthly or quarterly data from law enforcement agencies on the number of safety belt and child passenger safety citations and convictions;
- Evaluate the use of program resources and the effectiveness of existing general public and target population education programs;
- Obtain data on morbidity as well as the estimated cost of crashes, compare on the basis of safety belt usage and non-usage; and
- Ensure that evaluation results are an integral part of new program planning and problem identification.

HIGHWAY SAFETY PROGRAM GUIDELINE No. 21 ROADWAY SAFETY

Each State, in cooperation with its political subdivisions, should have a comprehensive roadway safety program that is directed toward reducing the number and severity of traffic crashes. Roadway Safety applies to highway safety activities related to the roadway environment. (Section 402 funds may not be used for highway construction, maintenance, or design activities, but they may be used to develop and implement systems and procedures for carrying out safety construction and operation improvements.)

I. PROGRAM MANAGEMENT

The Federal Highway Administration (FHWA) provides administrative oversight for the Roadway Safety portion of the Section 402 highway safety program in close coordination

with the State Highway Safety Agency (SHSA) and the State Highway Agency (SHA). An effective Roadway Safety program is based on sound analyses of roadway-related crash information and applies engineering principles in identifying highway design or operational improvements that will address the crash problem. The SHSA should:

- Assign program staff to work directly with the FHWA division safety engineer on roadway-related safety programs;
- Work in close harmony with the SHA, particularly with SHA staff who are responsible for traffic engineering, pedestrian and bicycle programs, commercial motor vehicle (CMV) safety, rail-highway crossing safety issues, work zone safety, design and operational improvements, and hazardous roadway locations;
- Foster an ongoing dialogue among all disciplines with a vested interest in highway safety, including engineers, enforcement personnel, traffic safety specialists, driver licensing administrators, CMV safety specialists, and data specialists;
- Promote a multi-disciplinary approach to addressing highway safety issues which focuses on comprehensive solutions to identified problems (e.g., a Community/Corridor Traffic Safety Program (C/CTSP));
- Become familiar with the various highway-safety related categories of Federal-aid highway funds--in addition to Section 402--in order to maximize the safety benefits of the entire program;
- Become familiar with the State's traffic records system and play a role in the system's ongoing operation, maintenance and enhancement;
- Become familiar with the Motor Carrier Safety Assistance Program (MCSAP) and coordinate MCSAP and section 402 program activities; and
- Assist community leaders in managing and/or coordinating roadway safety issues which fall under the jurisdiction of local communities.

II. IDENTIFICATION AND SURVEILLANCE OF CRASH LOCATIONS

Each state, in cooperation with county and other local governments, should have a program for identifying crash locations and for maintaining surveillance of those locations having high crash rates or losses. A model program should have the following characteristics:

- Procedures for accurate identification of crash locations on all roads and streets which identify crash experience on specific sections of the road and street system.
- An inventory of high crash locations and locations experiencing sharp increases in crashes and design and operational features with which high crash frequencies or severities are associated.
- Appropriate measures for reducing crashes and evaluating the effectiveness of safety improvements on any specific section of the road or street system.
- A systematically organized method to ensure continuing surveillance of the roadway network for potentially high crash locations and to develop methods for their correction.

III. HIGHWAY DESIGN, CONSTRUCTION AND MAINTENANCE

Every state, in cooperation with county and local governments, should have a program of highway design, construction, and maintenance to improve highway safety. A model program should have the following characteristics:

- Design guidelines relating to safety features such as sight distances, horizontal and vertical curvature, spacing of decision points, width of lanes, etc., for all new construction or reconstruction on expressways, major streets and highways, and through-streets and highways.
- Street systems that are designated to provide a safe traffic environment for all roadway users when subdivisions and residential areas are developed or redeveloped.
- Efforts to ensure that roadway lighting or new technology, such as retroreflective materials, is provided or upgraded on a priority basis at expressways and other major arteries in urban areas, junctions of major highways in rural areas, locations or sections of streets and highways which have high ratios of night-to-day motor vehicle and/or pedestrian crashes, and tunnels and long underpasses.
- Guidelines for pavement design and construction with specific provisions for high skid resistance qualities.
- A program for resurfacing or other surface treatment with emphasis on correction of locations or sections of streets and highways with low skid resistance and high or potentially high crash rates susceptible to reduction by providing improved surfaces.
- Efforts to ensure that there is guidance, warning and regulation of traffic approaching and traveling over construction or repair sites and detours, in conformance with the *Manual on Uniform Traffic Control Devices*.
- A method for systematic identification and tabulation of all rail-highway grade crossings and a plan for the elimination of hazards and dangerous crossings.
- Projects which provide for the safe and efficient movement of traffic by ensuring that roadways and the roadsides are maintained consistent with the design guidelines which are followed in construction.
- Procedures to identify and correct hazards within the highway right-of-way.
- Procedures for incident management and congestion mitigation.
- Wherever possible for crash prevention and crash survivability, efforts to include at least the following highway design and construction features:
 - roadsides which are clear of obstacles, with clear distance determined on the basis of traffic volumes, prevailing speeds, and the nature of development along the street or highway;
 - supports for traffic control devices and lighting that are designed to yield or break away under impact wherever appropriate;
 - protective devices that afford maximum protection to the occupants of vehicles where fixed objects cannot be reasonably removed or designed to yield;
 - bridge railings and parapets which are designed to minimize severity of impact, redirect the vehicle so that it will move parallel to the roadway, and minimize danger to traffic below;

- guardrails, and other design features which protect people from out-of-control vehicles at locations of special hazard such as playgrounds, schoolyards and commercial areas.
- A post-crash program that includes at least the following:
 - signs at freeway interchanges directing motorists to hospitals which have emergency care capabilities;
 - maintenance personnel who are trained in procedures for summoning aid, protecting others from hazards at crash sites, and removing debris;
 - provisions for access for emergency vehicles to and from freeway sections, where travel time would be reduced without reducing the safety benefits of access control.

IV. TRAFFIC ENGINEERING SERVICES

Each State, in cooperation with its political subdivisions and with each Federal department or agency which controls highways open to public travel or supervises traffic operations, should have a program for applying traffic engineering measures and techniques, including the use of traffic control devices which are in conformance with the *Manual on Uniform Traffic Control Devices*, to reduce the number and severity of traffic crashes. A model program should have the following characteristics:

- A comprehensive resource development plan to provide the necessary traffic engineering capability, including:
 - provisions for supplying traffic engineering assistance to those jurisdictions that are unable to justify a full-time traffic engineering staff;
 - provisions for upgrading the skills of practicing traffic engineers and for providing basic instruction in traffic engineering techniques to other professionals and technicians.
- Use of traffic engineering principles and expertise in the planning of public roadways, and in the application of traffic control devices.
- A traffic control device plan which includes:
 - an inventory of all traffic control devices;
 - periodic review of existing traffic control devices, including a systematic upgrading of substandard devices to conform with standards contained in the *Manual on Uniform Traffic Control Devices*;
 - a maintenance schedule adequate to insure proper operation and timely repair of control devices, including daytime and nighttime inspections; and
 - where appropriate, the application and evaluation of new ideas and concepts in applying control devices and in the modification of existing devices to improve their effectiveness through controlled experimentation.
- An implementation schedule which utilizes traffic engineering resources to:
 - review road projects during the planning, design, and construction stages to detect and correct features that may lead to operational safety difficulties;
 - install safety-related improvements as part of routine maintenance and/or repair activities;

- correct conditions noted during routine operational surveillance of the roadway system to rapidly adjust for the changes in traffic and road characteristics as a means of reducing the frequency and severity of crashes;
- conduct traffic engineering analyses of all high crash locations and develop corrective measures;
- analyze potentially hazardous locations--such as sharp curves, steep grades, and railroad grade crossings--and develop appropriate countermeasures;
- identify traffic control needs and determine short- and long-range requirements;
- evaluate the effectiveness of specific traffic control measures in reducing the frequency and severity of traffic crashes; and
- conduct traffic engineering studies to establish traffic regulations, such as fixed or variable speed limits.

Companion *Highway Safety Program Manuals* (February, 1974), which supplement this guideline, are available from the Federal Highway Administration's Office of Highway Safety. These supplements provide additional information to assist State and local agencies in implementing their roadway safety programs.

V. OUTREACH PROGRAM

While considerable progress has been made in reducing the highway death rate, forecasts of increased highway travel place new demands on the highway system. By necessity, roadways are being reconstructed while open to traffic, which places additional demands on motorists and construction workers. Increasing awareness of roadway-related safety issues will enhance highway safety in construction zones.

A proactive roadway safety outreach program will provide critical information to the public on roadway safety issues, explain existing roadway safety features, and establish communication channels among engineers, planners, enforcement personnel, highway safety advocacy groups, and the motoring public. To encourage outreach in the roadway safety area, States should:

- Identify those groups or individuals that may have an interest in promoting roadway safety, including roadway safety advocacy groups, law enforcement, community advocacy, the medical community, and create an effective communication network among the groups to keep members informed;
- Target specific areas in which the public needs roadway safety information and develop appropriate public information and education materials on various roadway safety issues.

VI. EVALUATION

Roadway Safety programs should be periodically evaluated by the State, or appropriate Federal department or agency where applicable, and the Federal Highway Administration

should be provided with an evaluation summary. Evaluations should include measures of effectiveness in terms of crash reduction.